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## **Resume**

### **Richard M. Adams**

Professor Emeritus

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## **Education**

B.S. 1968, University of California, Davis  
Major: Resource Management

M.S. 1971, University of California, Davis  
Major: Agricultural Economics

Ph.D. 1975, University of California, Davis  
Major: Agricultural Economics

## **Past Academic Employment and Experience**

July 1971 - July 1975. Research Assistant, Agricultural Economist, University of California, Davis.

August 1975 - August 1983. Assistant-Associate Professor, Division of Agricultural Economics, University of Wyoming. Joint research-teaching (67%-33%) appointment.

Participated in a two-year change of assignment from 8/81 to 8/83 at USEPA, Corvallis Environmental Research Laboratory (CERL) between the University of Wyoming and USEPA. Directed economic research on air quality control benefits for the National Crop Loss Assessment Network (NCLAN), an interdisciplinary task force funded by USEPA.

August 1983 to 2007. Professor of Agricultural and Resource Economics, Oregon State University. Professor Emeritus, 2006. Joint teaching-research position (25%-75%). Current research interests include: 1) economic assessments of effects of environmental change on agricultural and natural ecosystems; 2) and assessments of agricultural costs and social benefits of reducing groundwater pollution from agriculture; 3) valuation of water across competing uses. Teaching responsibilities include courses in resource and environmental economics.

2007-present. Professor Emeritus. Teach graduate courses in resource and environmental economics. Conduct research of interest.

## **Additional Employment Experience**

University of California, Davis. Consulted and collaborated on an analysis of the impacts of the electrical energy adjustments (price and quantity) on California's irrigated agricultural subsector. 1976.

USDA, ERS, NRED. Washington, D.C. Assisted NRED in assessing feasibility of quadratic programming methodology in resource projection research. 1976.

Consultant, Northwest Economic Associates, Vancouver, Washington. Involved in the assessment of the importance of land-related factors on the competitive position of northwest agriculture. 1979.

Consultant, CH2M-Hill. Sacramento. Critically evaluated the methodological framework for a water reuse feasibility study. Provided technical assistance in report preparation. 1980.

USEPA, Corvallis Environmental Research Laboratory. Evaluated the feasibility of a national air pollution crop loss assessment plan proposed by CERL. Represented CERL at EPA policy meeting in Durham, North Carolina. 1980.

Consultant, Mathtech, Inc., Princeton, New Jersey. Assisted Mathtech in development of a crop loss damage assessment framework. Provided guidance on modeling of specific agricultural commodity supply relationships. 1981.

Consultant, USEPA, Corvallis Environmental Research Laboratory. Provide economic guidance on development and implementation of National Crop Loss Assessment Network. Served as a member of Research Management Committee. 1981.

North Carolina State University. Review and provide public testimony on Acidic Deposition Critical Assessment Document review. Federal Task Force Critical Assessment Document public hearing, Raleigh, North Carolina. 1982.

Consultant, Biospherics, Inc., Rockville, Maryland. Prepare chapters on economics of vegetation and ecosystem damages for USEPA's Oxidant Criteria Document. 1982-1983.

Brookhaven National Laboratory, Upton, New York. Provide critical review and guidance on BNL's proposed acid deposition research program on agricultural effects. 1983.

Consultant, Northrop Service, Inc., Research Triangle Park, North Carolina. Participate in the preparation and review of manuscript on the environmental effects of particulates on visibility and climate. 1984.

Battelle Pacific Northwest Laboratories. Develop and implement an assessment framework to estimate the economic consequences of acid deposition control on U.S. agriculture. 1984-1985.

Consultant, Northwest Economic Associates, Vancouver, Washington. Assess the recreational fishery benefits of alternative dredging and maintenance operations at seven Oregon ports. July-September 1987.

Consultant, Energy and Resources, Inc., Boulder, Colorado. Assist in conceptualizing and implementing economic assessments of air pollution damages to major annual and perennial crops for the California Air Resources Board.

Consultant, KilKelly Environmental Associates, Raleigh, North Carolina. Evaluate the economic effects of selected global climate change scenarios on U.S. agriculture. 1988.

Argonne National Laboratory. Participate in programs to assist developing countries assess vulnerability to climate change. 1993-94.

Consultant, Industrial Economics, Inc. Provide review and comments on EPRI climate change program. 1993-96.

Consultant, ICF, Inc. Assess agricultural and forestry vulnerability to climate change. 1995-1996.

Expert Witness in Colorado vs. Kansas (in the Supreme Court of the United States). Provide evaluation and testimony concerning the value of water in agriculture. July 1998 to March 2002.

Center for Agricultural Resources and Development (CARD), Iowa State University, 2000-2002.

Consultant, Stratus Consulting, Inc., Boulder, Colorado. Provided external review and assistance on various projects. 1995-2006.

Battelle Pacific Northwest Laboratories. Provide external review and comment as requested on Battelle resource economic programs. 1987-2004.

U.S. Department of Commerce, NOAA. Provide external review of NOAA climate change and weather forecast programs. Conduct ten economic analyses of the value of weather forecasts between 1985 and 2010.

Consultant, Entrix, Inc., Vancouver, WA. Provide technical support as needed. On-going.

Consultant, Industrial Economics, Inc. Cambridge, MA. Provide technical support as needed. On-going.

California Bay-Delta Authority and Delta Science Program. Provided technical support as needed on a series of state and federal funded projects water resource projects in the California Delta and adjacent areas. These included review of the Delta Risk Management Study (2008) and review of the recent study on the sustainability of the economy of the Delta region (2011).

Coachella Valley Water District, Member of Water Advisory Committee. 2005-2010.

California Department of Fish and Game and the California Land Stewardship Institute. Perform study on economic costs of alternative steelhead habitat improvements in Napa County. 2009-2011.

## Teaching/Graduate Student Supervision

### Current Teaching

AREc 551 Resource Economics

### Past Teaching

In addition to the courses listed above, taught courses in environmental economics, applied welfare analysis, agricultural development, production economics, mathematical programming and research methods.

### Theses and Dissertations Directed at Oregon State University since 1983 (27)

Scott Hamilton, PhD, 1984  
Mario Niklitschek, MS, 1985  
Neal Johnson, MS, 1987  
Jeffery Connor, MS, 1987

Arcadio Cerda, MS, 1988  
Scott Johnson, PhD, 1989  
Michael Taylor, PhD, 1990  
Arcadio Cerda, PhD, 1991

Seonghoon Hong, PhD, 1991  
Brett Fried, MS, 1992  
Robert Berrens, PhD, 1993  
Pei-chen Lin, MS, 1994  
Roger Martini, MS, 1995  
Ronald Fleming, PhD, 1995  
Chris Costello, MS, 1996  
Seonghoon Cho, MS, 1996  
Brent Mahan, MS, 1996  
Harold Seely, MS, 1997  
Erik Knoder, MS, 1998  
Susan Burke, PhD, 1999  
Gwendolyn Aldrich, MS, 2002  
Michio Watanabe, PhD, 2003  
Barbara Wyse, MS, 2004  
Saichon Seedang, PhD, 2005  
(in Environmental Science program)  
Benjamin Rashford, PhD, 2006  
Randall Dell, MS, 2006  
Dannele Peck, PhD, 2006

Approximately 50 percent of peer-reviewed journal articles published since 1983 were co-authored with the graduate students listed above (see list of journal articles for specific articles). In addition, served as a committee member/minor professor on 48 MS and PhD committees within the AREc department. In total, served on 40 percent of all graduate committees within AREc between 1984 and 2006.

## Publications

### Books and Chapters in Books

1. Adams, R.M. and T.D. Crocker. "Analytical Issues in Economic Assessment of Vegetation Damages." In: *Crop Loss Assessment*. P.S. Teng and S.V. Krupa, eds. University of Minnesota Press. Minnesota. 1981.
2. Adams, R.M. and T.D. Crocker. "Economically Relevant Ecosystem Response Estimation and the Value of Information: Acid Deposition." In: *Economic Perspectives on Acid Deposition Control*. T.D. Crocker, ed. Ann Arbor Science—Butterworth Publishers. January 1984, pp. 35-64.
3. Adams, R.M., T.D. Crocker and R.W. Katz. "Yield Response Data in Benefit-Cost Analysis of Pollution-Induced Vegetation Damage." In: *Sulfur Dioxide and Vegetation: Physiology, Ecology and Policy Issues*. W.T. Winner, H.A. Mooney and R.A. Goldstein, eds. Stanford University, 1985, pp. 56-72.
4. Adams, R.M. "Models and Data Requirements for Measuring the Economic Consequences of UV-B Radiation on Agriculture." In: *Stratospheric Ozone Reduction, Solar Ultraviolet Radiation and Plant Life*. R.C. Worrest and M. Caldwell, eds. Springer-Verlag Publishers, Berlin, 1986. pp. 345-359.
5. Adams, R.M., J.D. Glyer and B.A. McCarl. "The NCLAN Economic Assessment: Approach Findings and Implications." In: *Assessment of Crop Loss from Air Pollutants*. W.W. Heck, D.T. Tingey and O.C. Taylor, eds. Elsevier Applied Science Press, London, 1988. pp. 473-504.
6. Adams, R.M. and T.D. Crocker. "Model Requirements for Economic Evaluations of Pollution Impacts on Agriculture." In: *Assessment of Crop Loss from Air Pollutants*. W.W. Heck, D.T. Tingey and O.C. Taylor, eds. Elsevier Applied Science Press, London, 1988. pp. 463-472.
7. Adams, R.M. "Estimated Economic Consequences of Ozone in Agriculture: Some Evidence from the U.S." In: *Atmospheric Ozone Research and Its Policy Implications*, T.D. Schneider, ed. Elsevier Science Publishers, Amsterdam, 1989. pp. 869-879.
8. McCarl, B.A., D. Brown, R.M. Adams and J. Pheasant. "Linking Farm and Sectoral Models in Spatial Equilibrium Analyses: An Application of Ozone Standards as They Affect Corn Belt Agriculture." In: *Quantitative Methods for Market Oriented Economic Analysis Over Space and Time*. W. Labys, T. Takayama and N. Uri, eds. Avebury Press, Aldershot, England, 1989.
9. Adams, R.M. and T.D. Crocker. "Materials Damages." Chapter IX. In: *Measuring the Demand for Environmental Quality*. C.D. Kolstad and J. Braden, eds. North-Holland Publishers, 1991. pp. 271-302.
10. Adams, R.M. and T.D. Crocker. "The Economic Impact of Air Pollution on Agriculture: An Assessment and Review." Chapter 10 in *Towards Sustainable Agricultural Development*. M.D. Young, ed. Belhaven Press, 1991. pp. 293-319.
11. Adams, R.M., C. Chang, B.A. McCarl and J.M. Callaway. "The Role of Agriculture in Climate Change: An Evaluation of Emission Control Strategies." Chapter 15 in *Economic Issues in Global*

- Climate Change: Agriculture, Forestry and Natural Resources*. J. Reilly and M. Anderson, eds. Westview Press, 1992. pp. 273-287.
12. Whittlesey, N., D. Bernardo, J. Hamilton and R. Adams. "Irrigation Management Under Drought Conditions." Chapter 12 in *Management of Water Use in Agriculture*. K. Tanji and B. Yaron, eds. Springer-Verlag Publishers, Berlin, March 1994.
  13. McCarl, B., C. Chang and R.M. Adams. "Climate Change and Texas Agriculture." Chapter 8 in *Implication of Climate Change and Texas*. G.R. North, J. Schmandt and J. Clarkson, eds. University of Texas Press, Fall 1994.
  14. L. Canter, C. Abdulla, R.M. Adams, et al. *Valuing Groundwater: Economic Concepts and Applications*. National Academy Press, Washington DC, 1997.
  15. Burke, S., R.M. Adams and A. Draper. "Estimating Economic and Environmental Benefits of Water Markets in a Spatially Diverse Setting" in *Conflict and Cooperation on Trans-boundary Water Resources*, R. Just and S. Netanyahu, eds. Kluwer Academic Publishers, Boston, 1998.
  16. Adams, R.M., et al. "The Economic Effects of Climate Change on Agriculture," Chapter 2 in *Effects of Climate Change on the U. S. Economy*, R. Mendelsohn and J. Neumann, eds. Cambridge University Press, New York, 1999.
  17. Adams, R.M., C.C. Chen, B.A. McCarl and D.E. Schimmelpfening. "Climate Variability and Climate Change" in *Advances in the Economics of Environmental Resources*, Vol. 3. D. Hall and R. Howarth, eds. JAI Press, London, 2001. pp. 115-148.
  18. Adams, R.M. and B. Hurd. "Climate Change and Agriculture." Chapter 1.6 in *Encyclopedia of Life Support Systems*. Oxford, UK, 2006.
  19. Adams, R.M. and B.A. McCarl. "Agronomic and Economic Effects of Climate Change." Chapter in *Global Warming and the American Economy*. R. Mendelsohn, ed. Edward Elgar Publishing, 2001. pp. 18-32.
  20. Adams, R.M., B. Hurd and J. Reilly. "Impacts on the Agricultural Sector." Chapter 3 in *Climate Change: Science, Solutions and Strategies*. E. Claussen, V. Cochran, Editors. Pew Center for Climate Change (2001). pp. 25-42.
  21. Adams, R.M. and B.A. McCarl. "Agriculture: Agroeconomic Analysis" Chapter 2 in *Global Warming and the American Economy: A Regional Assessment of Climate Change*. Robert Mendelsohn, ed. Edward Elgar Publishing, England (2001).
  22. McCarl, B.A., R.M. Adams and B. Hurd. "Global Climate Change and Its Impact on Agriculture." In *Encyclopedia of Life Support Systems*. C. Chang and C. Huang. UNESCO, 2001.
  23. Adams, R.M. (contributing author) *Agriculture: the Potential Consequences of Climate Variability and Change*. J.M. Reilly, Ed. Cambridge University Press, 2002.
  24. Wu, JunJie and Richard M. Adams. "Production Risks, Acreage Decisions and Implications for Revenue Insurance Programs." In *Risk Management and the Environment: Agriculture in Perspective*. B.A. Babcock, R.W. Fraser and J. N. Lekakis, eds. Kluwer Academic Publishers, Boston, 2003.
  25. Adams, R.M. "Economic Effects of Ozone on Managed and Natural Ecosystems." Chapter in *Ozone Criteria Document*. USEPA. 2003.

26. Lewis, W.M. Jr, R.M. Adams, et al. *Endangered and Threatened Fishes of the Klamath River Basin*. National Academy of Sciences Press, Washington DC, 2004.
27. Smerdon, E.T., R.M. Adams et al. *Managing the Columbia River: In-stream Flows, Water Withdrawals, and Salmon Survival*. National Academy of Sciences Press, Washington DC, 2004.
28. Adams, R.M., J. Wu and L.L. Houston. "Changes in Crop Yields and Irrigation Demand." Chapter 9 in *The Effects of Climate Change on Regional Systems*. R. Mendelsohn and J. Smith, eds. Edward Elgar Publishers, 2006.
29. Adams, R.M. and D.E. Peck. "Effects of Climate Change on Water Resources." in *Mountains, Valley and Flood Plans: Managing Water Resources in a Time of Climate Change*. A. Dinar and A. Garrido. Routledge Publishers, 2008.
30. Adams, R.M. and D.E. Peck. "Farm Level Impacts of Climate Change Assessment: Alternative Approaches for Modeling Uncertainty." In *The Handbook of Climate Change Economics*, edited by R. Mendelsohn and A. Dinar (forthcoming).
31. Attanavich, W., B.S. Rashford, R.M. Adams and B.A. McCarl. "Climate Change, Land Use and Ecological Performance: Linkages and Effects". In *Oxford Handbook on Land Use*. Edited by Joshua Duke and JunJie Wu. Oxford university Press

## Journal Articles

32. Adams, R.M. "Some Implications of Labor Adjustments in a Dual Economy Framework: Wyoming's Energy—Agriculture Interface." *Western Journal of Agricultural Economics*, 1(June 1977):196-200.
33. McKusick, R.B., R.M. Adams and J.H. Snyder. "The Value of Goods and Services—Implications for a Flexible National Water Policy." *Water Resources Bulletin*. June 1977.
34. Adams, R.M., G.A. King and W.E. Johnston. "Effects of Energy Cost Increases and Regional Allocation Policies on Agricultural Production." *American Journal of Agricultural Economics*, 59(August 1977):444-455.
35. Adams, R.M. and R.B. McKusick. "Regional Resource Use and Commodity Supply Response." *Agricultural Economics Research*. October 1977.
36. Adams, R.M. and D.J. Menkhaus. "Labor on the Farm: A Perspective and Some Emerging Issues." *Wyoming Issues*, Vol. 2, No. 1, Winter 1979.
37. Adams, R.M., D.J. Menkhaus and B. Woolery. "Alternative Parameter Specification in E,V Analysis: Implications for Farm Level Decision-Making." *Western Journal of Agricultural Economics*, 5(July 1980):13-20.
38. Howitt, R.E., R.M. Adams and W.D. Watson. "A Reevaluation of Price Elasticities for Irrigation Water." *Water Resources Research*, 16(August 1980):623-628.
39. Adams, R.M. and D.J. Menkhaus. "The Effects of Mining on Agricultural Hired Labor in the Northern Great Plains." *American Journal of Agricultural Economics*, 62(November 1980):748-752.
40. Santana, G.A.M. and R.M. Adams. "Projected Cropland Requirements and Land Availability for Major U.S. Production Regions." *Western Journal of Agricultural Economics*, 6(July 1981):69-81.

41. Adams, R.M. Review of "Energy Development in the Western United States: Impact on Rural Areas," by S. Murdock and F.L. Leistritz. *American Journal of Agricultural Economics*, 63(November 1981):761.
42. Menkhaus, D.J. and R.M. Adams. "Forecasting Price Movements: An Application of Discriminant Analysis." *Western Journal of Agricultural Economics*, 6(December 1981):229-38.
43. Adams, R.M., T.D. Crocker and N. Thanavibulchai. "An Economic Assessment of Air Pollution Damages to Selected Annual Crops in Southern California." *Journal of Environmental Economics and Management*, 9(March 1982):42-58.
44. Heck, W., O.C. Taylor, R.M. Adams, G. Bingham, J. Miller, E. Preston and I. Weinstein. "Assessment of Crop Loss from Ozone." *Journal of the Air Pollution Control Association*, 32(March 1982):353-361.
45. Howitt, R.E. and R.M. Adams. "A Reevaluation of Price Elasticities for Irrigation Water: Reply." *Water Resources Research*, 18(August 1982):1305-1308.
46. Adams, R.M. and T.D. Crocker. "Dose-Response Information and Environmental Damage Assessments: An Economic Perspective." *Journal of the Air Pollution Control Association*, 32(October 1982):1062-1067.
47. Adams, R.M., P.J. Farris and A.D. Halvorson. "Sugar Beet N Fertilization and Economic Optima: Recoverable Sucrose Versus Root Yield." *Agronomy Journal*, 75(March-April 1983):173-176.
48. Adams, R.M., P.J. Farris and D.J. Menkhaus. "Response Functions and the Value of Soil Test Information: The Case of Sugar Beets." *North Central Journal of Agricultural Economics*, 5(July 1983).
49. Adams, R.M. "Issues in Assessing the Economic Benefits of Ambient Ozone Control: Some Examples from Agriculture." *Environment International*, 9(November 1983):534-548.
50. Heck, W.W., R.M. Adams, W. Cure, O.C. Taylor, L. Kress and R. Kohut. "A Reassessment of Crop Loss from Ozone." *Environmental Science and Technology*, 17(December 1983):672A581A.
51. Mjelde, J., R.M. Adams, B.L. Dixon and P. Garcia. "Using Farmers' Actions to Measure Crop Loss Due to Air Pollution." *Journal of the Air Pollution Control Association*, 34(April 1984):360-364.
52. Howitt, R.E., T.W. Gossard and R.M. Adams. "Effects of Alternative Ozone Concentrations and Response Data on Economic Assessments: The Case of California Crops." *Journal of the Air Pollution Control Association*, 34(November 1984):1122-1127.
53. Adams, R.M., T.D. Crocker and R.W. Katz. "Assessing the Adequacy of Natural Science Information: A Bayesian Approach." *Review of Economics and Statistics*, 66(November 1984):568-575.
54. Dixon, B.L., P. Garcia, R.M. Adams and J.W. Mjelde. "Combining Economic and Biological Data to Estimate the Impact of Pollution on Crop Production." *Western Journal of Agricultural Economics*, 9(December 1984):293-302.
55. Hamilton, S.A., B.A. McCarl and R.J. Adams. "The Effect of Aggregate Response Assumptions on Environmental Impact Analysis." *American Journal of Agricultural Economics*, 67(May 1985):407-413.



56. Atkinson, S.E., R.M. Adams and T.D. Crocker. "Optimal Measurement of Factors Affecting Crop Production: Maximum Likelihood Methods." *American Journal of Agricultural Economics*, 67(May 1985):414-418.
57. Adams, R.M. and B.A. McCarl. "Assessing the Benefits of Alternative Ozone Standards on Agriculture: The Role of Response Information." *Journal of Environmental Economics and Management*, 12(September 1985):264-276.
58. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Economic Effects of Ozone Pollution on U.S. Agriculture." *Journal of the Air Pollution Control Association*, 35(September 1985):938-943.
59. Garcia, P., B.L. Dixon, J. Mjelde and R.M. Adams. "Measuring the Benefits of Environmental Change Using a Duality Approach: The Case of Ozone and Illinois Cash Grain Farms." *Journal of Environmental Economics and Management*, 13(March 1986):69-80.
60. Adams, R.M., J.M. Callaway and B.A. McCarl. "Pollution, Agriculture and Social Welfare: The Case of Acid Deposition." *Canadian Journal of Agricultural Economics*, 34(March 1986):3-19.
61. Adams, R.M. "Agriculture, Forestry and Related Benefits of Air Pollution Control: A Review and Some Observations." *American Journal of Agricultural Economics*, 68(May 1986):464-472.
62. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Benefits of Air Pollution Control: The Case of Ozone and U.S. Agriculture." *American Journal of Agricultural Economics*, 68(November 1986):885-894.
63. Matulich, S.C. and R.M. Adams. "Towards More Effective Wildlife Policies: An Economic Perspective of Wildlife Management Research." *Wildlife Society Bulletin*, 15(June 1987):285-291.
64. Johnson, N. and R.M. Adams. "Benefits of Increased Streamflow: The Case of the John Day River Steelhead Fishery." *Water Resources Research*, 24(November 1988):1839-1846.
65. Adams, R.M., J.D. Glyer, B.A. McCarl and D.J. Dudek. "The Implications of Global Change for Western Agriculture." *Western Journal of Agricultural Economics*, 13(December 1988):348-356.
66. Connor, J.D., R.M. Adams and J.D. Glyer. "Some Further Evidence on the Derived Demand for Irrigation Electricity: A Dual Cost Function Approach." *Water Resources Research*, 25(July 1989):1461-1468.
67. Adams, R.M. and T.D. Crocker. "The Agricultural Economics of Environmental Change: Some Lesson from Air Pollution." *Journal of Environmental Management*, 28(July 1989):295-307.
68. Adams, R.M., W.M. Musser, O. Bergland, S.L. Johnson and L.M. Musser. "User Fees and Equity Issues in Public Hunting Expenditures: The Case of Ring-Necked Pheasant in Oregon." *Land Economics*, 65(November 1989):376-385.
69. Johnson, N. and R.M. Adams. "On the Marginal Value of a Fish: Some Evidence from a Steelhead Fishery." *Marine Resource Economics*, 6(1989):43-55.
70. Adams, R.M. "Global Climate Change and Agriculture: An Economic Perspective." *American Journal of Agricultural Economics* Vol. 71, No. 5(December, 1989): 1271-1279.
71. Adams, R.M. and R.D. Rowe. "The Economic Effects of Stratospheric Ozone Depletion on U.S. Agriculture: A Preliminary Assessment." *Journal of Environmental Management* 30(1990):321-335.
72. Adams, R.M., C. Rosenzweig, J. Ritchie, R. Peart, J.D. Glyer, B.A. McCarl, B. Curry and J. Jones. "Global Climate Change and U.S. Agriculture." *Nature* (May, 1990):219-224.

73. Johnson, S.L., R.M. Adams and G.M. Perry. "The On-Farm Costs of Reducing Groundwater Pollution." *American Journal of Agricultural Economics* (November 1991):1063-1073.
74. Taylor, M.L., R.M. Adams and S. Miller. "Farm-level Responses to Agricultural Effluent Control Strategies: The Case of the Willamette Valley." *Journal of Agricultural and Resource Economics* (July, 1992):173-185.
75. Urrutia, A.C. and R.M. Adams. "The Travel Cost Approach for Estimating Recreation Demand and Benefits: An Application to the Salmon Sport Fishing in Oregon." *Economia y Administracion* (December, 1992):47-61.
76. Berrens, R., O. Bergland and R.M. Adams. "Valuation Issues in an Urban Recreational Fishery: Spring Chinook Salmon in Portland, Oregon." *Journal of Leisure Research*, 25(1993);70-83
77. Adams, R.M., J.M. Callaway, C. Chang, D.M. Adams and B.A. McCarl. "Sequestering Carbon on Agricultural Land: Social Cost and Impacts on Timber Markets." *Contemporary Policy Issues* (January, 1993):76-87.
78. Adams, R.M., R. Berrens, A. Cerda, H. Li and P. Klingeman. "Developing a Bioeconomic Model for Riverine Management: Case of the John Day River, Oregon." *Rivers* (July, 1993):213-226.
79. Hong, S., R.M. Adams and H.A. Love. "An Economic Analysis of Household Recycling of Solid Wastes: The Case of Portland, Oregon." *Journal of Environmental Economics and Management* (September, 1993)136-146.
80. E.N. Castle, R. Berrens and R.M. Adams. "Natural Resource Damage Assessment: Speculations About a Missing Perspective." *Land Economics* (August, 1994):378-385.
81. Adams, R., B.A. McCarl, A. Solow, K. Bryant, D. Legler and J. O'Brien. "Value of Improved Long Range Weather Information." *Contemporary Economic Policy* (July, 1995): 10-19.
82. Adams, R.M., R. Fleming, B.A. McCarl and C. Rosenzweig. "A Reassessment of the Economic Effects of Global Climate Change on U.S. Agriculture." *Climatic Change* (May, 1995).
83. Fleming, R., R.M. Adams and C.S. Kim. "Regulating Groundwater Pollution: Effects of Geo-Physical Response Assumptions on Economic Efficiency." *Water Resources Research* (April, 1995):1069-1076.
84. Fried, B., R.M. Adams, B. Berrens and O. Bergland. "Willingness to Pay for a Change in Elk Hunting Quality." *Wildlife Society Bulletin* (1995)23:680-686.
85. Connor, J.D., G.M. Perry and R.M. Adams. "Cost Effective Abatement of Multiple Production Externalities." *Water Resources Research* (August, 1995):1789-1796.
86. Lin, P-C., R.M. Adams and R.B. Berrens. "Welfare Effects of Fishery Policies: Native American Treaty Rights and Recreational Salmon Fishing." *Journal of Agricultural and Resource Economics* (December, 1996): 243-276.
87. Kim, C.S., C.L. Sandretto, R.M. Adams and R.A. Fleming. "An Alternative Specification for Modeling Groundwater Dynamics." *Natural Resource Modeling* (1997) Vol 10(3).
88. Fleming, R.A. and R.M. Adams. "The Importance of Site Specific Information in the Design of Policies to Control Pollution." *Journal of Environmental Economics and Management* (July, 1997) 33: 347-358.

89. Solow, A., R.M. Adams, D. Legler, B. McCarl, K. Bryant. "The Value of ENSO Forecasts: Case of U. S. Agriculture." *Climatic Change* (1998) 39: 47-60.
90. Adams, R.M., B. Hurd, S. Lenhart and N. Leary. "The Effects of Global Warming on World Agriculture: An Interpretative Review." *Journal of Climate Research* (1998)11:19-30.
91. Fleming, R.A., R.M. Adams and D.E. Ervin. "The Role of Soil Test Information in the Design of Tax Policies to Control Agricultural Pollution." *Journal of Agricultural and Resource Economics* (1998) 23: 20-38.
92. Costello, C.J., R.M. Adams and S. Polasky. "The Value of El Niño Forecasts in the Management of Salmon: A Stochastic Dynamic Approach." *American Journal of Agricultural Economics* (1998) 80:765-777.
93. Adams, R.M. and S.H. Cho. "Agriculture and Endangered Species Protection: An Analysis of Tradeoffs in the Klamath Basin, Oregon." *Water Resources Research* (1998) 34:2741-49.
94. Berrens, R.P. and R.M. Adams. "Applying Contingent Valuation in the Design of Fee Hunting Programs." *Human Dimensions of Wildlife* (1998) 3:11-25.
95. Adams, R.M. "On the Search for the Correct Economic Assessment Method." *Climatic Change* (1999) 41:362-370.
96. Adams, R.M. and B.H. Hurd. "Climate Change and Agriculture: Some Regional Implications." *Choices* (1999) First Quarter.
97. Hong, S.H. and R.M. Adams. "Household Responses to Price Incentives for Recycling: Some Further Evidence." *Land Economics* (1999) 75:505-514.
98. Mahan, B., S. Polasky and R.M. Adams. "Valuing Urban Wetlands: A Property Price Approach." *Land Economics* (2000) 76:100-113.
99. Adams, R.M., C. Chen, B.A. McCarl and R.F. Weiher. "The Economic Consequences of ENSO Events on Agriculture." *Journal of Climate Research* (1999) 13:165-172.
100. Wu, J., R.M. Adams and W. Boggess. "Threshold Effects and Optimal Targeting of Conservation Efforts: Steelhead Trout Habitat Enhancement in Oregon." *American Journal of Agricultural Economics* (2000) 82:400-413.
101. Stevens, J.B., R.M. Adams, et al. "Benefits, Costs and Local Impacts of Market-Based Streamflow Enhancements." *Rivers* (2000) 7:89-108.
102. Wu, J., R.M. Adams, B. Babcock and D. Zilberman. "Targeting Resource Conservation Expenditures." in *Choices*, Second Edition, 2000.
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239. Menkhous, D.J. and R.M. Adams. "The Effect of Feed Prices, Interest Rates and Fed Cattle Prices on Breakeven Feeder Cattle Prices: A Simulation Approach." Selected paper presented at annual meeting of Western Agricultural Economics Association. Lincoln, Nebraska. July 19-21, 1981.
240. Adams, R.M. and T.D. Crocker. "Economically Relevant Response Estimation and the Value of Information: The Case of Acid Rain." Invited paper presented before the Division of Environmental Chemistry, American Chemical Society. Las Vegas, Nevada. April 1, 1982.
241. Adams, R.M. "Economic Assessment of Ozone Damages: The NCLAN Approach." Paper presented at the 75th Annual Air Pollution Control Association annual meetings. New Orleans, Louisiana. June 21-25, 1982.
242. Crocker, T.D., R.M. Adams and R. Katz. "Dose-Response Information and Agricultural Assessments: A Bayesian Framework." International Symposium on the Effects of SO<sub>2</sub> on Plant Productivity. Stanford University. November 29, 1982.
243. Adams, R.M. "Assessing the Economic Costs of Air Pollution on Agriculture." California Air Resources Board Symposium on Effects of Air Pollution on Agriculture. Fresno, California. November 18, 1982.
244. Gum, R., R.M. Adams and S. Garifo. "Recreation Values as a Function of Methodology." Western Regional Committee on Recreation (W-113) annual meeting. San Diego, California. February 17, 1983.
245. Adams, R.M. "Policy and Technical Issues of Air Pollution Control: An Economic Perspective." Invited seminar, Department of Atmospheric Sciences, Oregon State University. April 21, 1983.
246. Adams, R.M. "Methods for Measuring the Economic Consequences of UV-B Radiation on Terrestrial Ecosystems." Paper presented at NATO Advanced Research Workshop on the Impact of Solar Ultraviolet Radiation upon Ecosystems. Bad Windsheim, West Germany. September 29, 1983.
247. Adams, R.M. "The Role of Biological Data in Economic Assessments of Pollution Control Policies." Paper presented at California Air Resources Board Research Workshop. Davis, California. January 11, 1984.
248. Adams, R.M. "Benefit-Cost Assessments: The Case of Ozone and Agriculture." Invited paper, Sixteenth Annual Air Pollution Effects Workshop. Banff, Alberta. April 30-May 2, 1984.
249. Adams, R.M. "The Economic Effects of Environmental Stress on U.S. Agriculture." Invited seminar, National Center for Atmospheric Research. Boulder, Colorado. June 6, 1984.
250. Mjelde, J.W., B.L. Dixon, P. Garcia and R.M. Adams. "Cash Grain Farmers' Profits and Air Pollution." Selected paper, American Agricultural Economics Association annual meeting. Cornell University, Ithaca, New York. August 5-8, 1984.
251. Adams, R.M. "Distributional Issues in Resource Planning." Report for ERC/EPRI. Water Resources Department Economics Workshop. November 1984.
252. McCarl, B.A. and R.M. Adams. "Improving the Performance of Programming Based Environmental Analysis of Agriculture." Invited paper AAEA/AEA winter meeting. Dallas, Texas. December 1984.

253. Atkinson, S.E., R.M. Adams and T.D. Crocker. "Optimal Measurement of Factors Affecting Crop Production: Maximum Likelihood Methods." Invited paper AAEA/AEA winter meeting, Dallas, Texas. December 1984.
254. Adams, R.M. "The Economics of Pollution Control." Invited seminar, Department of Agricultural Economics, University of Arizona. Tucson, Arizona. March 29, 1985.
255. Menkhaus, D.J., G. Gutkowski and R.M. Adams. "The Demand for Feedlot Placements in the Great Plains." Selected paper, Western Agricultural Economics Association annual meetings, Saskatoon, Saskatchewan. July 1985.
256. Adams, R.M. "The Benefits of Air Pollution and Acid Deposition Control." Invited paper, Allied Social Sciences Association annual meetings, New York, New York. December 28-29, 1985.
257. Adams, R.M. "Agriculture, Forestry and Related Benefits of Air Pollution Control: A Review and Some Observations." American Agricultural Economics Association winter meetings, New York, New York, December 1985.
258. Adams, R.M. "The Economic Implications of Air Pollution for California." Invited paper, Symposium on the Causes and Effects of Air Pollution and Acid Rain, California State University, Fresno, California. August 18-19, 1986.
259. Adams, R.M. "The Role and Value of Natural Science Information in Economic Analysis." Invited seminar, U.S. Environmental Protection Agency, Corvallis. November 24, 1986.
260. Adams, R.M. "Benefits and Costs of Water Yield Enhancements: An Example from the John Day River." Invited seminar, Water Resources Research Institute, Oregon State University. December 4, 1986.
261. Adams, R.M. "The Benefits of Oregon's Pheasant Stocking Program to Willamette Valley Hunters." Invited paper, Northwest Regional meeting, Oregon Department of Fish and Wildlife, Salem, Oregon. January 13, 1987.
262. Adams, R.M. and T.C. Crocker. "The Impact of Pollution from Other Sources on Agriculture: An Assessment and Review of the Economics." Invited paper, OECD workshop on the Integration of Environmental Policies with Agricultural Policies, Paris, France. May 11-13, 1987.
263. Adams, R.M., J.D. Glyer and B.A. McCarl. "The NCLAN Economic Assessment: Approach, Findings and Implications." Invited paper, International Conference on Assessment of Crop Loss from Air Pollutants, Raleigh, North Carolina. October 25-29, 1987.
264. Adams, R.M. "Economic Effects of Air Pollution on Agriculture: The Stratospheric-Tropospheric Ozone Interaction." Invited paper, U.S.-Dutch International Symposium on Ozone. Nijmegen, The Netherlands. May 8-13, 1988.
265. Tingey, D.T. and R.M. Adams. "Assessing the Impact of Tropospheric Ozone on Agriculture: Results of a 7-Year Study." Oregon State University Seminar Series on Problems and Paradigms for Environmental Change Issues. May 26, 1988.
266. Adams, R.M., B.A. McCarl and D.J. Dudek. "The Implications of Long-Term Climate Change for Irrigated Agriculture." Invited paper, Western Agricultural Economics Association annual meeting, Honolulu, Hawaii. July 10-13, 1988.
267. Johnson, S.L., R.M. Adams and G.M. Perry. "Optimal Irrigation and Fertilization Strategies for Managing Groundwater Pollution." Invited paper, American Geophysical Union winter meetings, San Francisco, California. December 5-9, 1988.

268. Adams, R.M. and J.D. Glycer. "The Effects of Global Climate Change in Western Agriculture." Invited paper, University of Wyoming Symposium on Global Climate Change: Impacts and Opportunities for Wyoming and the Region. Laramie. April 24-25, 1989.
269. Adams, R.M. and J.D. Glycer. "The Adequacy of Data on Ozone Effects on Vegetation: An Economic Perspective." Invited paper, annual meeting of Air Pollution Control Association, Anaheim, California. June 30, 1989.
270. Adams, R.M. "Global Climate Change: Marine Outreach Frontier." National Marine Extension Advisory Symposium, Portland, Oregon. July 20, 1989.
271. Johnson, S.L., R.M. Adams and G. Perry. "Strategies for Reducing Groundwater Pollution from Agriculture: The Case of Irrigated Production in Oregon." Contributed paper, American Agricultural Economics Association meetings, Baton Rouge, Louisiana. August 1, 1989.
272. Adams, R.M. "Global Climate Change: An Economic Perspective." Invited paper, American Agricultural Economics Association, Baton Rouge, Louisiana, July 30-August 2, 1989.
273. Adams, R.M. "The Role of GCM's in Studying Climate Change and Agricultural Markets," Invited paper, Seminar series on Global Climate Change, Cornell National Supercomputer Facility, Ithaca, NY. October 9, 1989.
274. Adams, R.M. "Potential Economic Effects of Climate Change." Invited Seminar, Department of Agricultural Economics, Cornell University, Ithaca, NY. October 9, 1989.
275. Adams, R.M. "An Economists' Viewpoint on Climate Change," Invited Seminar, U.S. Environmental Protection Agency. January 24, 1990.
276. Adams, R.M. "The Role of Agriculture in Climate Change," Invited Paper, Symposium on Managing Agriculture for Environmental Goals, Washington DC. May 16, 1990.
277. Adams, R.M. and B.A. McCarl. "Estimating the Effects and Contributions of Agriculture and Forestry." Invited Paper, Conference on Global Change: Economic Issues in Agriculture, Forestry and Natural Resources, Washington D.C. November 19-21, 1990.
278. Adams, R.M. "The Role of Agriculture in Trace Gas Emissions: Costs of Alternative Control Strategies," Invited Seminar, University of Nevada, Reno. December 3, 1990.
279. Adams, R.M. "The Effects of Climate Change on Regional Comparative Advantage." Invited Seminar, Los Alamos National Laboratory, Los Alamos, New Mexico. February 19, 1991.
280. Adams, R.M. "Economic Issues in Climate Change." Invited Seminar, Department of Economics, University of New Mexico. February 18, 1991.
281. Adams, D., R.M. Adams, J.M. Callaway and B.A. McCarl. "Sequestering Carbon in Agricultural Lands: A Preliminary Analyses of Social Cost and Impacts on the Timber Market." Invited Paper, Western Economics Association International Conference, Seattle, WA. June 30, 1991.
282. Adams, R.M. and T. Mount. "Climate Change and the Environment: Some Economic Issues." Invited Paper, International Agricultural Economics Association Meeting, Tokyo, Japan. August 23, 1991.
283. Adams, R.M. "Designing Recreation Valuation Studies: Some Pacific Northwest Experiences." Paper presented at workshop on Recreational Valuation, Mols Bergere, Denmark. June 6, 1992.
284. Adams, R.M. "On Valuing Fish and Wildlife Resources." Invited Seminar, Department of Economics, Royal Agricultural University, Copenhagen, Denmark. June 2, 1992.

285. Callaway, J.M., B.A. McCarl, R.M. Adams and C. Chang. "Carbon Sequestration and Agriculture." Western Economics Association Annual Meetings, June 1993.
286. Fleming, R.A. and R.M. Adams. "Regulating Groundwater Pollution: Effects of Geophysical Response Assumptions on Economic Efficiency." Western Agricultural Economics Association Annual Meetings, July 1993.
287. Kim, C.S., R.M. Adams and R. Fleming. "The Choice of Policy Instruments for Groundwater Quality Protection." Selected Paper, American Agricultural Economics Association Annual Meetings, San Diego, California, August 3-6, 1994.
288. Adams, R.M. "Natural Resource and Environmental Issues in the Pacific Northwest: Role of Economic Analysis." Invited Paper, International Seminar on Valuation of Natural and Environmental Resources. University of Concepción, Chile, August 25, 1994.
289. Adams, R.M. "Welfare Effects of Fishery Allocations: Native American Treaty Rights and Recreational Fishing." Invited Paper, International Seminar on Valuation of Natural and Environmental Resources. University of Concepción, Chile, August 25, 1994.
290. Adams, R.M., A. Solow, B. McCarl, D.M. Legler and R. Weiher. "The Value of El Niño Forecasts to Agriculture." Conference on the Economic Benefits of Meteorological Services, World Meteorological Organization. Geneva, Switzerland, September 19-23, 1994.
291. Fried, B., B. Berrens and R. Adams. "Willingness to Pay for a Change in Elk Hunting Quality: Evidence from the Starkey." Conference on Forestry and the Environment: Economic Perspectives. Banff, Canada, October 12-15, 1994.
292. Adams, R.M., B.A. McCarl, A. Solow and R. Weiher. "The Value of Improved Long-Range Forecasts for the U.S. Agricultural Sector." American Meteorological Society 75th Annual Meetings, Dallas, TX, January 19, 1995.
293. Adams, R.M. "Climate and Agriculture: A Review and Some Observations." Invited paper National Center for Atmospheric Research Symposium on the Economics of Climate, Boulder, CO, June 5-6, 1995.
294. Adams, R.M., P.C. Lin and R.P. Berrens. "Welfare Effects of Fishery Allocation Decisions: Native American Treaty Rights and Recreational Salmon Fishing." Invited paper, Third Annual Danish Workshop on Non-Market Valuation, Skjoldenæsholm, Denmark, June 8-9, 1995.
295. Costello, C.J., R.M. Adams, S. Polasky and D. Sampson. "Value of Improved ENSO Forecasts: A Stochastic Bioeconomic Model Applied to the Pacific Northwest Coho Fishery." Paper presented at American Fisheries Society Conference on Sustainable Fisheries. Vancouver, B.C., March 18-23, 1996.
296. Adams, R.M. "Benefits of Climate Information: Case of Agriculture, Fisheries, Energy and Water Management." NOAA-IOC Workshop on Socio-economic Aspects of GOS. Bethesda, MD, May 15, 1996.
297. Bergland, O., B. Fried and R. Adams. "Temporal Stability of Values from the Contingent Valuation Method." Paper presented at EAERE annual meetings, Lisbon, Portugal, June 18-21, 1996.
298. Adams, R.M. "The Value of ENSO Forecasts to Agriculture and Fisheries." Invited seminar, Texas A&M University, September 13, 1996.



299. Burke, S., R.M. Adams and A. Draper. "Estimating Economic and Environmental Benefits of Water Markets in a Spatially Diverse Setting." Invited paper, International Water and Resource Economics Consortium, Annapolis, MD, April 14-16, 1997.
300. Adams, R.M. "Climate Change, Agricultural Productivity and Food Supplies." Invited paper, USEPA/AMA Conference on Emerging Public Health Threat and the Role of Climate Change, Atlanta, GA, March 11-12, 1998.
301. Adams, R.M. "Climate Change and Agriculture: What Have We Learned From the Past Decade?" Paper presented AAEA Annual Meetings, Salt Lake City, UT, August 3-5, 1998.
302. Adams, R.M. "Climate Change and Agriculture: Impacts and Opportunities." National Forum on Agriculture, Ames, IA, March 1-2, 1999.
303. Burke, S., R.M. Adams, R.E. Howitt and W. Wallander. "Modeling the Economic and Hydrology of Agricultural Water Use with a Spatial Perspective." Pacific Northwest Conference on Environmental and Resource Economics, Eugene, OR, May 21-22, 1999.
304. Adams, R.M. "Effects of Climate Change on Agriculture: Facts and Fantacies." American Agricultural Economics Workshop on Climate, Nashville TN, August 7, 1999.
305. Adams, R.M., B.A. McCarl and C.C. Chen. "Economic Effects of Shifts in ENSO Event Frequency and Strength." International Workshop on Climate Prediction and Agriculture (CLIMAG), World Meteorological Organization, Geneva, Switzerland, September 27-29, 1999.
306. Adams, R.M. "The Economic Value of ENSO Forecasts: The U.S. Experience." International Seminar on Climate Change and Variability. University of Talca, Talca, Chile. January 26-27, 2000.
307. Adams, R.M. "The Value of Climate Forecasts." International Forum on Climate Prediction, Agriculture and Development. Columbia University, Palisades, New York. April 26-28, 2000.
308. Adams, R.M. "Impacts and Benefits of Climate Change." Caribbean Conference on Planning for Adaptation to Global Climate Change. San Fernando, Trinidad. May 15-16, 2000.
309. Adams, R.M. "Climate Change and the Political Economy of Carbon Sequestration." American Agricultural Economics Association Annual Meeting, Tampa, Florida. July 31-August 2, 2000.
310. Adams, R. "Future Directions in Economic Research on Air Pollution." International Conference on Future Directions in Air Quality Research, North Carolina State University, February 11-14, 2001.
311. Adams, R.M. and L.L. Houston. "Value of Improved ENSO Forecasts to Mexican Agriculture." Workshop on Assessing ENSO Effects on the Mexican Economy, UNAM, Mexico City, MX, June 3-5, 2001.
312. Adams, R.M. "A Review of Climate Change Effects on Agriculture." Workshop on Climate Change Impacts and Integrated Assessments, Snowmass, CO, August 1-4, 2001.
313. Adams, R.M. "Institutional Failure and the ESA: Case of the Klamath Basin. AAEA Annual Meetings, Long Beach, CA, August 2002.
314. Adams, R.M. "Effects of Climate Change on Crop Yields and Water Use." California Energy Commission Symposium on Climate Change, Sacramento, CA, February 20, 2003.
315. Weiher, R.F., R.M. Adams and T.E. Teisburg. "Valuing Weather Forecasts." Presentation at World Bank Workshop on Modernizing Russian Meteorological Services, Moscow, Russia. November, 2003.

316. Adams, R.M. "The Role of Economic Information on Design of Weather Forecast Products." Presentation at NOAA Workshop on the Use of Economics in Priority Setting, Washington D.C., April 22, 2004.
317. Adams, R.M. and D.E. Peck. "Strategies for Mitigating Water Supply Reductions: Case of Oregon's Irrigated Agriculture." USDA Conference on Risk Management in a Water-Short World, Washington D.C., May 22-24, 2004.
318. Adams, R.M. "Role of Weather Forecasts in Drought Management." NCAR Workshop on Weather and Water, Boulder, CO, September 2004.
319. Adams, R.M. "Climate Change and Water Resources: Implications for the Pacific Northwest." Presentation to Oregon Editors and Publishing Association, Portland, OR, April 8, 2005.
320. Adams, R.M. "The Value of Streamflow Forecasts in Managing Endangered Salmonids." Paper presented at NOAA Workshop on Valuation of Water Resources, Washington, D.C., August 2-3, 2005.
321. Adams, R.M. "Global Warming: Challenges and Opportunities." Invited Paper, Consejo Nacional Agropecuario (National Agricultural Business Council), Mexico City, Mexico. June 14-15, 2006.
322. Adams, R.M. and D.E. Peck. "Climate Change and Water Resources." Invited Paper, Rosenberg International Forum on Water Resources, Banff, Canada. September 7-10, 2006.
323. Peck, D.M. and R.M. Adams. "Persistence of Drought Effects Across Growing Seasons: a Dynamic, Stochastic Analysis". 101<sup>st</sup> Seminar of the European Association of Agricultural Economists: Management of Climate Risks in Agriculture. Berlin, Germany, June 5-6, 2007
324. Adams, R.M. "Climate Change: Economics of Water Resources Effects." Keynote address Association of Caribbean and Latin American Environmental Economists, Talca, Chile, September 24-27, 2007.
325. Peck, D. E. and R.M. Adams. "Influence of Incentives and Property rights on water demand and water disputes". Invited paper at EXP) 2008, Thematic Week 7, The Role of Market instruments in Integrated Water Management. Zaragosa, Spain, July 28-August 1, 2008.
326. Adams, R.M., B. Huang and C. Langpap. "The Value of Stream Temperature Forecasts: Case of the Pacific Northwest." Invited Seminar, National Weather Service, Office of Hydrological Development, Washington, D.C., September 19, 2009.
327. Adams, R.M., C. Langpap and B. Huang. The Value of Stream temperature Forecasts in the Management of Salmonids. Invited Seminar, NOAA Fisheries, Seattle, WA. May 27, 2010.
328. Kim, C.S., M. Aillery, R.M. Adams and M Livingston. "A Dynamic Model of Farmer Adaptation to Surface Water Supply Uncertainty". 2011 Joint Annual Meetings of AAEA and NEREA, Pittsburgh, PA.
329. Attanavich, W., B. Rashford, R. M. Adams and B. McCarl. "An Economic Analysis of Climate Change Impacts of Agriculture and Wetlands". AERE/AAEA Annual meetings, Seattle WA. 2012

## **Professional Affiliations and Related Activities**

Reviewer for over 25 agricultural economics, economics, and interdisciplinary journals.

Member, Master's Thesis Awards Committee, Western Agricultural Economics Association, 1976, 1980, 1988.

Member, Outstanding Published Research Award, Western Agricultural Economics Association, 1985.

Council Member, Western Agricultural Economics Association, 1975-1977.

Member of Editorial Council, Western Journal of Agricultural Economics, 1980-1982.

Reviewer for USEPA, Critical Assessment Document on Acid Deposition, 1982-1983.

Reviewer and Chairperson, various sessions and years, Western Agricultural Economics Association and American Agricultural Economics Association annual meetings.

Member, American Agricultural Economics Association.

Member, Western Agricultural Economics Association.

Member, Association of Environmental and Resource Economists.

Member, Western Economics Association

Chairperson, AAEA Awards Program, 1990.

Member, AAEA Outstanding Policy Contribution Committee, 1990-1992; 1999-2001.

Member, AAEA Fellows Selection Committee, 2003.

## **University Related Activities**

Member, Graduate Advisory Committee, Division of Agricultural Economics, University of Wyoming, 1975-1981.

Member, University of Wyoming Committee on Committees, 1978.

Chairman, Master's Thesis Selection Committee, Division of Agricultural Economics, University of Wyoming, 1981.

Member, Dean's Search Committee, College of Agriculture, University of Wyoming.

Associate, Resource and Environmental Economics Laboratory, University of Wyoming.

Member, University of Wyoming Academic Standards committee, 1977-1980.

Member, Planning and Policy Committee, Department of Agricultural and Resource Economics, Oregon State University, 1984-1990.

Member, Graduate Advisory Committee, Department of Agricultural and Resource Economics, Oregon State University, 1984-1990.

Member, Water Resources Institute Board of Directors, 1985-1988.

Member, Oregon State University Faculty Senate, 1988-1991.

Member, College of Agricultural Student Awards Committee, 1988, 1990, 1991.

Vice Chair, Planning and Policy Committee, Oregon State University, 1988-1990.

Chair, Graduate Committee and Graduate Program Coordinator, 2000-2005.

## **Honors, Awards and Professional Recognition**

Henry A. Jastro Fellowship for Graduate Study, University of California, Davis 1970-1971.

Outstanding Doctoral Dissertation, Department of Agricultural Economics, University of California, Davis, 1975.

Gamma Sigma Delta.

Member, Agricultural Advisory Committee and chairman, Science Advisory Subcommittee, California Air Resources Board. 1982 to 1988.

Member, USEPA Air Ecology Peer Review Panel. Provide annual review of EPA air pollution effects programs and projects, consult with project leaders as needed. 1980-1982.

Invited participant, NATO Advanced Research Seminar on the Effects of UV-B Radiation on Terrestrial Ecosystems. Bad Windsheim, West Germany, September 1983.

Invited participant, USEPA/NATO Workshop on the Effects of Air Pollutants on Climate and Visibility: Research Review and Recommendations. Rougemont, North Carolina. January 29-February 1, 1984.

Member, USEPA Photo biology Peer Review Panel. Conduct annual reviews of EPA research program on UV-B radiation effects on terrestrial ecosystems. 1984-1986.

Member, Technical Subcommittee of Oregon Department of Environmental Quality Advisory Committee on Field Burning. 1985-1987.

**U.S. Environmental Protection Agency. Award for Research Excellence, National Crop Loss Assessment Network. November 1987.**

Member, Agricultural Advisory Committee, and Chairman, Science Advisory Subcommittee, California Air Resources Board. 1982 to 1987.

Invited Participant, U.S.-Dutch Symposium on Ozone Effects. Nijmegen, The Netherlands. May 8-13, 1988.

**Associate Editor, *Water Resources Research*. 1988-1992.**

Chairman, Policy Sciences Committee, Hydrology Section, American Geophysical Union, 1988-1990.

**Thesis Advisor, outstanding M.S. Thesis, Western Agricultural Economics Association, 1988.**

External Reviewer, College of Agriculture Research Program, University of Nevada, Reno, December 3-4, 1990.

Member, Council on Agricultural Science and Technology (CAST) Committee on Water Quality. 1991-92.

Advisory Panel, Systems at Risk from Climate Change. U.S. Congress, OAT, 1992.

**Vice President, Western Agricultural Economics Association, 1990-1991.**

**Editor, *American Journal of Agricultural Economics*, 1992-1994. Vols. 74-76.**

Peer Review Panel, U.S. Department of Energy, Secretary of Energy Advisory Board, 1993.

Member, Council on Agricultural Science and Technology (CAST) Committee on the Future of Irrigated Agriculture, 1993-94.

Member, National Research Council, Committee on the Future Value of Groundwater, 1994-96.

Member, USEPA Socioeconomic Review Panel, 1995.

**Editor's Citation for Excellence in Referring, *Water Resources Research*, 1995.**

Editorial Council, *Journal of Environmental Economics and Management*, 1996-1998.

**Outstanding Journal Article (Lin, Adams and Berrens), *Journal of Agricultural and Resource Economics*, 1996.**

Member, Office of Global Programs, NOAA 1997 Review Panel.

Member, National Technical Advisory Committee, National Institute for Global Environmental Change, 1997-2000.

Co-Convener, U.S. National Forum on Climate Change, Washington DC, November 1997.

**Vice-Chancellor's Award for Excellence, Texas A&M University, 1998.**

Member, Steering Committee for Agricultural Assessment, USGRP, 1998-2000.

Member, NOAA Panel on the Value of the ISOOS Program, 2000.

**Distinguished Fellow, American Association of Agricultural Economics, 2001.**

Member, National Research Council Committee on the Status of Endangered Fishes of the Klamath Basin, 2001-2002.

**Outstanding Journal Article (WU and Adams), *Canadian Journal of Agricultural Economics*, 2001.**

Member, National Research Council Committee on Water Resources Management, Instream Flows and Salmon Survival in the Columbia River, 2003-2004.

**Listed in *Who's Who in Economics*, Fourth Edition, M. Blaug (ed.), Edward Elgar Publishers, 2003.**

**Member, Independent Science Board, California Bay-Delta Authority (CALFED).**

Member (with J. Mount, U.C. Davis and R. Twiss, UC Berkeley), Panel on the "Role of Science in the Future of the California Delta." California Resource Agency. 2006.

Member, Technical Advisory Panel, CALFED Delta Risk Management Strategy. 2007-2008.

**Outstanding Journal Article, *Australian Journal of Agricultural and Resource Economics* (Peck and Adams). 2010**

## Research Grants

Principal or Co-Principal Investigator for the following contracts:

\$145,600 — USDA, SEA. To direct research on the economic consequences of ozone related crop losses for major agricultural commodities and production regions. July 1981 to December 1983.

\$215,000 — USEPA, Office of Research and Development. Funds to conduct NCLAN regional and national economic assessments. July 1981 to June 1984.

\$45,000 — USEPA. Develop methods for assessing the long-term economic consequences of air pollution on perennial crops and forests. October 1982 to September 1984.

\$49,000 — USEPA, Acid Deposition Assessment Program. Assess preliminary economic costs of acid deposition on Midwest agriculture. March 1984 to May 1985.

\$237,000 — USEPA, Office of Research and Development. Assess economic effects of air pollution on crop yield variability; incorporate environmental risk measures in economic assessments of pollution control. March 1985 to December 1987.

\$2,650 — Oregon State University Agricultural Research Foundation. To assess benefits and costs of water allocation within the John Day River Basin of Oregon. July 1986-1988.

\$135,000 — U.S. Department of Interior, Geological Survey. Develop and implement an interdisciplinary assessment of the economic benefits and costs of Streamflow and habitat alteration for Steelhead trout enhancements on the John Day River, Oregon. September 1987 to August 1990.

\$47,800 — U.S. Department of Interior, Geological Survey. Determine the economic consequences of alternative irrigation practices restrictions to reduce groundwater pollution in Morrow/Ambitious Counties, Oregon. September 1987 to August 1989.

\$44,000 — U.S. Environmental Protection Agency. Measure the economic effects of climate change on U.S. Agriculture. A component of an interdisciplinary study of the overall consequences of global climate change. October 1987 to September 1988.

\$107,000 — USDA, CARS. Assess the economic costs to irrigated agricultural producers of alternative groundwater quality restrictions in Oregon and Washington. August 1989 to July 1991.

\$105,000 — USDA, CARS. Continuation of above project. September 1991 to August, 1993.

\$41,700 — USEPA. Assess the effects of changes in water supply due to climate change on U.S. agriculture. October, 1991 - September, 1993.

\$85,000 — USDA, ERS. Assess the effects of management practices groundwater quality in the Treasure Valley region of eastern Oregon. June, 1992 - June, 1995.

\$78,000 — USDA, NOAA. Assess the value of improved ENSO forecasts to Pacific Northwest salmon fisheries. May 1, 1995 - April 30, 1996.

\$229,000 — USDA, CARS. Low Flow Augmentation Through Market Transfers of Deschutes River Water. August, 1995 - July, 1997.

\$148,500 — USDA, CARS. Assessment of Economic Tradeoffs Between Environmental Quality and Agricultural Production in the Klamath Basin. October 1, 1996 - September 30, 1998.

\$34,500 — USDA, USAR. Economic Analyses of Water-Based Recreation in the Upper Klamath Basin. June, 1999 - July, 2000.

\$76,000 — NOAA, UDC. Assess the Value of ENSO Forecasts to the Mexican Agricultural Sector. November, 1999 to December 2001.

\$15,600 — US Forest Service. Assess value of water across various uses in western U.S. August 2000 - February, 2001.

\$45,000 — US Forest Service. Assess future demands for water resources in the Pacific Northwest. 2001-2002.

\$39,000 — USDA, ERS. Farmers response to drought in federal irrigation projects. October 2002-September, 2004.

\$42,000 — Delta Waterfowl Foundation. Assess value of wetland mitigation in Manitoba. September 2003-December, 2005.

\$59,000 — NOAA, USDC. Implications of Climate Variability and Forecasts to Western Water Users, 2006.

\$60,000 — USEPA STAR Grant, Implications of Climate Change on Wetlands in the Prairie Pothole Region of North America. 2006-2008.

\$54,000 — NOAA, National Weather Service. An Assessment of the Value of Stream Temperature Forecasts. 2008.

#### Co-Investigator (at University of Wyoming)

\$545,000 — USEPA. To develop and apply methods for assessing the benefits of environmental improvements. 1977 to 1980.